

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the present application:

Listing of Claims:

1-6 (cancelled).

7. (currently amended) —~~The method of claim 4 wherein polling devices in a Bluetooth wireless communications network to determine respective energy metrics includes:~~ A method for actively evaluating and adjusting device energy consumption in a personal area network (PAN), the PAN comprising a Bluetooth wireless communications network, the method comprising:
polling devices in the PAN to determine respective energy metrics, the polling comprising:
establishing a piconet with one device functioning as a master device and at least one other device functioning as a slave device,
determining if devices are powered by battery; and,
identifying the battery charge status for each device powered by battery; and,
establishing network communications between devices using the energy metrics, the establishing network communications comprising:
~~wherein the master device~~
establishing network communications rules between devices, via the master device to optimize device battery life includes comprising:
determining a priority of operation for the devices in the network; and,
establishing network communication rules in response to device battery charge status and device priority of operation, and

minimizing energy consumption for devices with low energy metrics.

8. (original) The method of claim 7 wherein identifying battery charge status for each device powered by battery includes:
 - determining the charge remaining on the device batteries; and,
 - determining whether the device is connected to a battery charger.
9. (original) The method of claim 8 wherein the master device establishing network communications rules between devices to optimize device battery life includes modifying a device link state; and,
wherein modifying the device link state includes modifying device scan rate, device mode setting, and the function of the device as a slave or master in the piconet.
10. (original) The method of claim 9 wherein polling devices in a Bluetooth wireless communications network to determine respective energy metrics includes determining a link energy metric associated with network link communication functions selected from the group including receiving, transmitting mode, standby, required average data rate, burst data rate, peak data rate, latency requirements, scan rates, and link reliability.
11. (original) The method of claim 10 wherein the master device establishing network communications rules between devices to optimize device battery life includes establishing network communication rules in response to the link energy metric.
12. (original) The method of claim 11 wherein polling devices in a Bluetooth wireless communications network to determine respective energy metrics includes:

determining an idle mode energy consumption rate associated with inherent functions of the devices;
determining a working mode energy consumption rate associated with inherent functions of the devices;
determining an operational energy metric in response to a probability of the devices being in the working mode; and,
wherein the master device establishing network communications rules between devices to optimize device battery life includes establishing network communication rules in response to the operational energy metric.

13. (original) The method of claim 12 wherein determining a working mode energy consumption rate includes determining energy consumption for functions selected from the group including communicating, displaying video images, performing calculations, printing, producing audio output, and operating motors and fans.

14. (original) The method of claim 13 further comprising:
selecting manual override functions including establishing optional device operations and enhancing the performance of existing device operations; and,
wherein the master device establishing network communications rules between devices to optimize device battery life includes establishing network communication rules in response to the manual override selections.

15-16 (cancelled).

17. (original) The method of claim 13 wherein polling devices in a Bluetooth wireless communications network to determine respective energy metrics includes determining a network battery ratio, the network battery ratio comparing device battery charge status, device priority of operation, and the combination of the link energy metric and the operational energy metric; and,

wherein the master device establishing network communications rules between devices to optimize device battery life includes comparing network battery ratios.

18. (original) In a Bluetooth wireless communications network, a method for actively evaluating and adjusting device energy consumption, the method comprising:
- establishing a piconet with one device functioning as a master device and at least one other device functioning as a slave device;
 - polling devices to determine respective energy metrics;
 - determining a priority of operation for each device in the network;
 - identifying a battery charge status for each device powered by battery;
 - determining a link energy metric associated with network link communications; and,
- the master device modifying a link state between devices to optimize device battery life in response to the battery charge status, the device priority of operation, and the link energy metric.

19-23 (cancelled).

24. (currently amended) —~~The system of claim 21 wherein the master device has A~~
system for actively evaluating and adjusting device energy consumption in a
personal area network (PAN), the system comprising:
- a PAN comprising a Bluetooth wireless communications piconet;
 - a first device (master device) within the PAN comprising a calculator
configured to accepting slave device energy metrics from other
devices and supplying energy consumption rules to optimize device
battery life in response to the slave device energy metrics, the master
device configured to:
 - poll other devices to determine respective energy metrics,

establish network communications between devices in response to
determining energy metrics and to minimize energy
consumption for devices with low energy metrics,
establish network communications rules with at least one slave
device; and,

~~wherein each slave device has a second device (slave device) within the~~
PAN, the slave device comprises a controller configured to accepting
the energy consumption rules and ~~an output for controlling~~ energy use
in response to the energy consumption rules.

25. (original) The system of claim 24 wherein the calculator accepts energy metrics from each slave device including a device battery charge status for devices powered by battery; and,
wherein the battery charge status includes the charge remaining on the battery and whether the device is connected to a battery charger.
26. (original) The system of claim 25 wherein the calculator determines a priority of operation for devices in the network; and,
wherein the calculator supplies energy consumption rules to optimize device battery life in response to device battery charge status and device priority of operation.
27. (original) The system of claim 26 wherein the calculator modifies link states as part of the energy consumption rules to optimize device battery life; and,
wherein link states include device scan rate, device mode setting, and the function of the device as a slave or master in the piconet.
28. (original) The system of claim 27 wherein the calculator accepts slave device link energy metrics for energy consumption associated with network link communications functions selected from the group including receiving,

transmitting, standby, required average data rate, burst data rate, peak data rate, latency requirements, scan rates, and link reliability; and,
wherein the calculator supplies energy consumption rules to optimize device battery life in response to the link energy metrics.

29. (original) The system of claim 28 wherein the calculator accepts operational energy metrics from the slave devices for:
 - an idle mode energy consumption rate associated with inherent functions of the devices;
 - a working mode energy consumption rate associated with inherent functions of the devices; and,
 - a probability of the slave devices operating in the working mode.
30. (original) The system of claim 29 wherein the calculator supplies energy consumption rules to optimize device battery life in response to the operational energy metrics.
31. (original) The system of claim 30 wherein the working mode energy consumption rate is selected from the group of functions including communicating, displaying video images, performing calculations, printing, producing audio output, and operating motors and fans.
32. (original) The system of claim 31 wherein the calculator accepts manual override function selections, the manual override functions including establishing optional device operations and enhancing the performance of existing device operations; and,
wherein the calculator supplies energy consumption rules to optimize device battery life in response to the manual override selections.
33. (cancelled).

34. (original) The system of claim 31 wherein the master device polls the slave devices to determine a network battery ratio of battery charge status and priority of operation compared with the combination of the link energy metric and the operational energy metric; and,
wherein the master device supplies energy consumption rules to optimize device battery life in response to the comparison of network battery ratios.
35. (original) In a personal area network, a system for actively evaluating and adjusting device energy consumption, the system comprising:
a first device functioning as a master device to establish network communications rules with at least one slave device in a Bluetooth wireless communications piconet;
wherein the master device has a calculator supplying energy consumption rules to minimize energy consumption for devices with low energy metrics in response to priority of operation for devices and slave device energy metric data including:
whether devices are powered by battery;
for those device powered by battery, the charge remaining on the battery and whether the device is connected to a battery charger; and,
link energy metrics for energy consumption associated with network link communications;
wherein the slave devices have controllers supplying outputs to modify slave device link states in response to the energy consumption rules;
and,
wherein link states include device scan rate, device mode setting, and the function of a device as a slave or master in the piconet